

February 4, 1948.

Dr. Ward Pigman,  
Institute for Paper Chemistry,  
Appleton, Wis.

Dear Dr. Pigman,

I'm very sorry that I was unable to fulfill my intentions of visiting you last week, and trust that my telegram came in time to save you embarrassment. As soon as I can conveniently manage it, I'll complete those intentions.

Dr. Link and some<sup>of</sup> his students are very kindly helping me in the synthesis of various substrates. I may have told you that some of the lactose-negative mutants can split methyl-, butyl- and phenyl- $\beta$ -galactosides, whereas others cannot. Among the compounds that should be of some interest is methyl- $\beta$ -D-arabinoside. Of course, we want the one with the same ring structure as  $\beta$ -D-galactoside and it is on this point that we have some confusion, because there are several nomenclatures. Could you tell me the m.p. and rotation of the compound you refer to as  $\alpha$ -L-arabinoside (methyl) ? the one which is presumably related to  $\beta$ -D-galactoside? If you should happen to know if anyone has any of same, so much the better, as Prof. Link tells me that the synthesis is not only laborious but time-consuming. Any alkyl - derivative would be about as useful as the methyl. Additional biological evidence of a relationship between L-arabinose and D-galactose has turned up in adaptive enzyme experiments: although most other sugar adaptations are strictly specific, galactose-grown cells are adapted to arabinose as well, and conversely.

Sincerely,